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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,751	11/17/2003	Brig Barnum Elliott	BBNT-P01-090	5527
28120 7590 05/17/2007 FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER SINGH, DALZID E	
			ART UNIT 2613	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/715,751

Applicant(s)

ELLIOTT, BRIG BARNUM

Examiner

Dalzid Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5, 7-10, 12, 14-21 and 34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10, 12, 14-20 and 40 of copending Application No. 10/715,738. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 1 of both applications is similar except for the word master node.

However, it would have been obvious to indicate one of the node as the master node.

Claims 2-5 are similar to claims 2-5 of application '738.

Claims 7-10 are similar to claims 6-9 of application '738 respectively.

Claim 12 is similar to claims 10 of application '738.

Claim 14 is similar to claim 12 of application '738 except for a third node.

However, it would have been obvious to indicate one of the node as the third node.

Claims 15-21 are similar to claims 14-20 of application '738 respectively.

Claim 34 is similar to claim 40 of application '738 except for first and third node.

However, it would have been obvious to indicate one of the nodes as first and third node.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 23-28, 31 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Britz et al (US Patent No. 6,788,898).

Regarding claim 23, Britz et al disclose method of communicating between first and second nodes in a network, shown in Fig. 2, comprising: establishing an optical channel between the first and second nodes by transmitting electrical signals over a non-optical channel; and

communicating via the established optical channel between the first and second nodes.

Regarding claim 24, wherein the first node comprises a mobile node (see Fig. 2).

Regarding claim 25, wherein establishing the optical channel comprises: steering a first optical aperture to point towards the second node from the first node; and

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establishing the optical channel via the first optical aperture (see col. 4, lines 48-51 and col. 5, lines 4-10).

Regarding claim 26, wherein establishing the optical channel further comprises:
steering a second optical aperture to point towards the first node from the
second node; and

establishing the optical channel via the second optical aperture (see col. 4, lines 48-51 and col. 5, lines 4-10).

Regarding claim 27, wherein the first and second optical apertures comprise
telescopes (see col. 4, lines 48-51 and col. 5, lines 4-10).

Regarding claim 28, wherein the non-optical channel comprises a radio-
frequency (RF) channel (see Fig. 2).

Regarding claim 31, wherein the optical channel comprises free space (see Fig.
2).

Regarding claim 32, wherein the optical channel comprises an optical fiber (see
Fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-22, 29, 30, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Britz et al (US Patent No. 6,788,898) in view of Whitehill (US Patent No. 7,190,672).

Regarding claim 1, Britz et al disclose a method of implementing optical channel access in a network comprising a plurality of distributed nodes, as shown in Fig. 2, the method comprising:

optical channel access via radio-frequency (RF) messaging from one or more of the plurality of distributed nodes (RF signals are transmitted to and from towers (24) and nodes (12, 14, 16 and 18)); and

optical channel access to at least one of the plurality of distributed nodes based on the RF messaging (optical channels (44) are within the nodes).

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47). Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known

protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Regarding claims 2 and 15, wherein the optical channel comprises a free-space channel (see Fig. 2).

Regarding claims 3 and 16, wherein the optical channel comprises an optical fiber channel (see Fig. 2).

Regarding claim 4, wherein the plurality of distributed nodes comprise mobile nodes (see col. 3, lines 60-66).

Regarding claim 5, wherein the network comprises an ad-hoc network (see Fig. 2).

Regarding claim 6, wherein the access request comprises a request-to-send (RTS) message (as discussed above, Whitehill teaches RTS message).

Regarding claim 7, the method of claim 1, further comprising:
denying optical channel access to another of the plurality of distributed nodes based on the RF messaging (as discussed above, if the request is not accepted then it is denied; see col. 1, lines 25-47).

Regarding claim 8, wherein denying optical channel access comprises: sending an access denial message via RF messaging (denial message is sent if the request is not accepted; the communication system of Britz et al and Whitehill is wireless system, therefore the message is sent wireless).

Regarding claim 9, wherein granting optical channel access to the at least one of the plurality of distributed nodes comprises sending an access granted message via RF messaging (the communication system of Britz et al and Whitehill is wireless system, therefore the message is sent wireless).

Regarding claim 10, further comprising: subsequent to optical channel access denial, waiting a period of time before repeating the optical channel access request via RF messaging (this is part of standard protocol of 802.11).

Regarding claim 11, wherein the access granted message comprises a clear-to-send (CTS) message (see col. 1, lines 25-47 of Whitehill).

Regarding claim 12, wherein the period of time is derived from a retry time contained in the access denial message (this is part of standard protocol of 802.11).

Regarding claim 13, Britz et al disclose a system for implementing optical channel access in a network comprising a plurality of distributed nodes, as shown in Fig. 2, comprising:

a first node of the plurality of distributed nodes configured to communicate the optical channel access with at least one other node via radio-frequency (RF) messaging (RF signals are transmitted to and from towers (24) and nodes (12, 14, 16 and 18));
and

a second node configured to communicate the optical channel access to the first node based on the RF messaging (optical channels (44) are within the nodes).

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47). Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Regarding claim 14, Britz et al disclose method of establishing an optical link between a first node and a second node in a network, wherein at least one of the first and second nodes comprises a mobile node, as shown in Fig. 2, the method comprising:

sending a message to establish the optical link from the first node to the second node via electrical signals over an electrically transmissive medium (the nodes can communicate electrically via RF or optically; see Fig. 2);

receiving a message from the second node via electrical signals over the electrically transmissive medium;

establishing the optical link between the first node and the second node based on the receipt of the message; and

transmitting data between the first node and the second node via optical signals over the optical link.

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47). Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Regarding claim 17, wherein the request denied message includes a time period that the first node is to wait before sending another request message to the second node (this is a standard of 802.11).

Regarding claim 18, wherein the electrical signals comprise radio-frequency (RF) signals and wherein the electrically transmissive medium comprises free-space (see Fig. 2).

Regarding claim 19, wherein the electrically transmissive medium comprises a wired medium (it would have been obvious to an artisan of ordinary skill in the art to provide wired medium).

Regarding claim 20, wherein establishing an optical link comprises: pointing at least one steerable aperture at least one of the first and second nodes; and establishing the optical link via the steerable aperture (see col. 4, lines 48-51 and col. 5, lines 4-10).

Regarding claim 21, wherein the steerable aperture comprises a telescope (see col. 4, lines 48-51 and col. 5, lines 4-10).

Regarding claim 22, Britz et al disclose a first node in a network, as shown in Fig. 2, comprising: a non-optical transceiver (24) configured to:

send a message to establish an optical link from the first node to a second node via electrical signals over an electrically transmissive medium, wherein the second node comprises a mobile node; and an optical subsystem configured to:

establish the optical link between the first node and the second node based on receipt of a message, and

transmit data between the first node and the second node via optical signals over the optical link.

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and

granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47).

Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Regarding claim 29, Britz et al do not disclose that the non-optical channel comprises a wired medium. However, it would have been obvious to an artisan of ordinary skill in the art to provide wired medium in order to provide security and reliability.

Regarding claim 30, wherein the wired medium employs at least one of Ethernet, Internet, and ATM protocols (see col. 2, lines 49-53).

Regarding claim 33, Britz et al disclose a first node in a network, as shown in Fig. 2, comprising: a non-optical transceiver (24) configured to:

transmit electrical signals over a non-optical channel and thereby for establishment of an optical channel with a second node; an optical subsystem configured to:

establish the optical channel between the first and second nodes responsive to a response to the request; and an optical transceiver configured to:

communicate via the established optical channel between the first and second nodes.

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47). Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Regarding claim 34, Britz et al disclose a system for establishing an optical link with a mobile node in a network, as shown in Fig. 2, comprising:

means for sending message, to establish the optical link to the mobile node, via electrical signals over an electrically transmissive medium;

means for receiving message from the mobile node via electrical signals over the electrically transmissive medium;

means for establishing the optical link with the mobile node based on receipt of the message; and

means for transmitting and receiving data from the mobile node via optical signals over the optical link.

Britz et al disclose wireless communication system for transmitting and receiving data signals and suggest the use of 802.11 standards (see col. 3, lines 60-66) and differ from the claimed invention in that Britz et al do not specifically disclose the process of standard protocol of such transmission and reception of signal by requesting and granting access. Whitehill teaches wireless communication system that uses standard well-known protocol in the IEEE 802.11 for wireless networks which enables wireless communications devices to communicate with each other (see col. 1, lines 25-47). Such communication protocol involves requesting and granting messages. Therefore, it would have been obvious that the wireless system of Britz et al uses the well known protocol as taught by Whitehill. One of ordinary skill in the art would have been motivated to use this in order to transmit data to an intended destination node.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuehnel et al (US Patent No. 5,787,077) is cited to show dynamic connection mapping in wireless ATM systems.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DS
May 11, 2007

DALZID SINGH
PRIMARY EXAMINER

